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## METHOD FOR MANUFACTURING A SOYBEAN FIBER JAPANESE CRACKER

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[There are no amendments to this patent.]

#### Claims

1. A method for manufacturing a soybean fiber Japanese cracker characterized by the fact that soybean fibers are kneaded with starch food, protein food, or food fibers, seasoned, heated, and dried.

- 2. The method for manufacturing a soybean fiber Japanese cracker of Claim 1, characterized by the fact that the soybean fiber is a residue when soymilk, bean-curd, or soybean protein is separated from soybean.
- 3. The method for manufacturing a soybean fiber Japanese cracker of Claim 1, characterized by the fact that the starch food is rice powder, barley powder, corn powder, or starch.
- 4. The method for manufacturing a soybean fiber Japanese cracker of Claim 1, characterized by the fact that the protein food is soybean protein, wheat protein, fish meat or egg.
- 5. The method for manufacturing a soybean fiber Japanese cracker of Claim 1, characterized by the fact that the food fiber is mannan, alginic acid, pectin, or agar.
- 6. The method for manufacturing a soybean fiber Japanese cracker of Claim 1, characterized by the fact that the heating is carried out at a temperature of about 60-120°C for about 10-30 min.
- 7. The method for manufacturing a soybean fiber Japanese cracker of Claim 1, characterized by the fact that the drying is hot-air drying, baking, frying, freeze-drying, or pressure-drying.

#### Detailed explanation of the invention

Technical field of the invention

This invention concerns a method for manufacturing a soybean fiber Japanese cracker using soybean fibers as an ingredient.

Crackers are foods that are obtained by adding water, heating, molding, and drying rice grains and rice flour, and have been loved for many years. The aim of this invention is to offer a food which has a taste like that of a cracker and can be obtained by adding a starch food, for example, to soybean fibers, which can be obtained when separating soy milk, bean curd, and soybean protein, for example, from soybeans, and then heating, molding, and drying the [mixture].

Technical background of the invention and the problem

The benefit of food fibers has been rediscovered in recent years. More precisely, food fibers in chopped burdock root cooked in soy and sesame oil, brown algae, and bean-curd refuse, for example, not only function to prevent constipation by promoting the vermicular movements of the intestines but also function to restrain the reabsorption of cholesterol within the intestinal tract. Furthermore, food fibers have the nature of adhering to bile acid which is included in bile, which is a kind of digestive fluid. As a result, because bile acid is a digestive enzyme which must

be present for the decomposition of fats in food, the decomposition as well as adsorption of fats are restrained when it adheres to food fibers, and the adsorption of cholesterol can be restrained.

Such food fibers have been consumed conventionally as side dishes but have not been consumed as snacks.

On the other hand, soybean residue is produced in a large amount as a by-product when separating soy milk, bean curd, and soybean protein, for example, from soybeans. Other than for animal foods, this soybean residue is provided in a very small quantity for food use. Bean curd refuse, for example, other than for animal foods, has no particular use, and in some cases it is thrown away and disposed of. However, this residue contains a large amount of food fiber, and its effective use has been sought.

#### Effect of the invention

This invention solves the problem described above, and consists of a process in which a starch food such as rice flour, for example, a protein food such as ground fish meat, for example, and a food fiber such as agar, for example, are kneaded into soybean fiber, which is a residue from separating soy milk, bean curd, and soybean protein from soybeans, with seasoning. Next, [the mixture] is heated at approximately 60-120°C for approximately 10-30 min, and then dried.

The product in this invention does not yet have a specific name. Therefore, the name "soybean fiber cracker" will be used in the specifications of this [invention].

### Application examples

The manufacturing method of this invention will be explained next.

## Application Example 1

To 1 kg of soybean fiber, approximately 1 kg of nonglutanous rice, approximately 150 g of salt, and approximately 500 g of water were added and stirred. This [mixture] was cooked at approximately 100°C for approximately 30 min, then kneaded by a kneading machine and cut. The water content was reduced, and then it was oil fried and dried at approximately 180°C.

# **Application Example 2**

To approximately 500 g of sterilized soybean fibers, approximately 1 kg of ground fish meat and approximately 150 g of salt were added and stirred. This [mixture] was left at 30°C for approximately 120 min, cooked at approximately 100°C for approximately 15 min and cut, and then frozen and dried.

#### Application Example 3

To approximately 500 g of sterilized soybean fibers, approximately 100 g of agar, approximately 50 g of sugar, and approximately 1 kg of water were added. This [mixture] was heated and stirred, cooled and molded, and then frozen and dried.

The aforementioned sterilized soybean fibers can be obtained by cooking soybean fibers in an autoclave at approximately 1.0-1.5 kg/cm<sup>2</sup> for approximately 20-30 min. Also, the rough texture of the soybean fiber can be improved and it can be tastefully eaten by pulverizing it through forced dispersion or by a mixer or grinder, for example, if necessary.

Furthermore, regarding the amount of soybean fibers that are used, it is proper when the amount added is less than 50% in solid content with rice flour, less than 60% with ground fish meat, and less than 150% with agar from the viewpoints of form and the taste of the product. When the amount is more than the above, the texture becomes undesirably rough.

#### Effect

As above, this invention not only offers an effective use of soybean fiber, which has been thrown away as a residue, but also offers healthful food which has a cracker-like finish, is easy to eat, and has an excellent taste. In this [healthful] food, fibers that modern people lack can be easily consumed in the form of a snack by adding a starch food such as rice flour, for example, a protein food such as ground fish meat, for example, and food fibers such as agar, for example, to the soybean fibers, which alone have disadvantages as a food with respect to taste, smell, preservation, and handling, for example, and kneading, heating, and drying [the mixture].